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COOK'S COMPILED

EIGHTH GRADE

REVIEW BOOK



REVISED EDITION



An
EIGHTH GRADE REVIEW BOOK

COMPILED
by
G. C. COOK
A Student in the College of Agriculture
University of Nebraska

REVISED EDITION

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Preface

Having formerly taught a District School for two years I realize the need in County Schools of some kind of an Eighth Grade Review book.

The purpose of this book is to aid the teacher in reviewing the pupil and also to furnish a source by which the pupil can review himself. This book is not to be used as a regular text throughout the year, but to be used for review during the month preceding eight grade examinations.

The material herein is written in the simplest language in order that it may be understandable to every eighth grade pupil.

This book contains nothing but answers to eighth grade questions which have been asked in examinations ranging from 1909 to 1921.

The material herein is compiled from Hamilton's Standard Arithmetic, book three; Milne's Standard Arithmetic; Hoenshels Advanced Grammar; A History of the United States by Thwaites, and Kendall, and also Montgomery's and McMasters Histories.; The Natural School Geography by Redway and Hinman; Fryes Elements of Geography; The Farm Garden Rule Book by L. H. Bailey; Live Language Lessons by Howard R. Driggs, third book; and Hygienic Physiology by J. D. Steele.

I wish to acknowledge the above books and extend a word of appreciation to their writers for the information I have obtained from these books.

G. C. COOK.
University of Nebraska.

Arithmetic

ARITHMETIC is the science of numbers and the art of computing by them.

A UNIT is a single thing; as, one, one cent.

A NUMBER is a unit or a collection of units.

The Arabic numerals are: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9.

THE ROMAN SYSTEM:

I, 1	XIV, 14	XC, 90
II, 2	XV, 15	C, 100
III, 3	XVI, 16	CCC, 300
IV, 4	XVII, 17	CD, 400
V, 5	XVIII, 18	D, 500
VI, 6	XIX, 19	DC, 600
VII, 7	XX, 20	DCC, 700
VIII, 8	XXX, 30	DCCC, 800
IX, 9	XL, 40	CM, 900
X, 10	L, 50	M, 1,000
XI, 11	LX, 60	MCM, 1,900
XII, 12	LXX, 70	<u>V</u> , 5,000
XIII, 13	LXXX, 80	<u>M</u> , 1,000,000

ADDITION

The SUM is the result of addition.

SUBTRACTION

The SUBTRAHEND is the number to be subtracted.

The DIFFERENCE, or remainder, is the result of subtraction.

The MINUEND is the number from which we subtract.

MULTIPLICATION

The MULTIPLICAND is the number multiplied.

The MULTIPLIER is the number by which we multiply.

The PRODUCT is the result of multiplication.

DIVISION

The **DIVIDEND** is the number to be divided.

The **DIVISOR** is the number by which we divide.

The **QUOTIENT** is the result of division.

The **REMAINDER** is the part of the dividend remaining when the quotient is not exact.

A **CONCRETE NUMBER** is a number used with reference to a particular object; as, 5 days, 10 pounds, 8 inches.

An **ABSTRACT NUMBER** is a number used without reference to a particular object; as, 5, 8, 20.

An **INTEGER** or an integral number is a whole number.

FRACTIONAL UNITS

A **COMMON FRACTION** is a fraction that has both terms expressed; as, $\frac{3}{4}$, $\frac{4}{4}$, $\frac{1}{4}$.

A **PROPER FRACTION** is a fraction whose value is less than 1; as, $\frac{1}{2}$, $\frac{7}{8}$, $\frac{3}{4}$.

A **IMPROPER FRACTION** is a fraction whose value is equal to or greater than 1; as $\frac{8}{8}$, $\frac{9}{8}$, $\frac{4}{3}$, $\frac{5}{5}$, $\frac{6}{5}$, etc.

A **MIXED NUMBER** is a number expressed by a whole number and a fraction; as $3\frac{1}{2}$, $12\frac{3}{4}$.

PARTS OF A DOLLAR.

1	e equals $\frac{1}{100}$	of \$1.00	33 $\frac{1}{3}$ e equals $\frac{1}{3}$	of 1.00
2	e equals $\frac{1}{50}$	of 1.00	37 $\frac{1}{2}$ e equals $\frac{3}{8}$	of 1.00
4	e equals $\frac{1}{25}$	of 1.00	40 e equals $2\frac{2}{5}$	of 1.00
5	e equals $\frac{1}{20}$	of 1.00	50 e equals $\frac{1}{2}$	of 1.00
6 $\frac{1}{4}$ e	equals $\frac{1}{16}$	of 1.00	62 $\frac{1}{2}$ e	equals $\frac{5}{8}$ of 1.00
8 $\frac{1}{3}$ e	equals $\frac{1}{12}$	of 1.00	66 $2\frac{2}{3}$ e	equals $\frac{2}{3}$ of 1.00
10 e	equals $\frac{1}{10}$	of 1.00	75 e	equals $\frac{3}{4}$ of 1.00
12 $\frac{1}{2}$ e	equals $\frac{1}{8}$	of 1.00	80 e	equals $\frac{4}{5}$ of 1.00
16 $2\frac{2}{3}$ e	equals $\frac{1}{6}$	of 1.00	83 $\frac{1}{3}$ e	equals $\frac{5}{6}$ of 1.00
20 e	equals $\frac{1}{5}$	of 1.00	87 $\frac{1}{2}$ e	equals $\frac{7}{8}$ of 1.00
25 e	equals $\frac{1}{4}$	of 1.00		

COMMISSION AND BROKERAGE

A person who buys, sells or transacts business for another is called an agent, Collector, Commission Merchant, or Commission Broker, according to the nature of the business transacted.

The commission or brokerage is a certain percent of the amount of money involved in the transaction.

The Net proceeds is the amount left after commission and all other charges have been paid.

The one who sends the merchandise to be sold is the principal, the shipper, or the consignor.

EXAMPLES

1. A real estate agent sold four lots for \$250, \$325, \$395, and \$405, respectively. How much was his commission at 5%? Ans. \$68.75.

2. A fruit grower shipped to his commission merchant 600 bbl. apples, which were sold at \$3.50 a barrel. The agent deducted \$43.90 freight charges, \$27.75 cartage, 12¢ a barrel for cold storage, and 5 per cent commission. Find the amount remitted. Ans. \$1851.35.

3. My agent bought 180 bbl. apples at \$4.80 a barrel. He paid \$50.00 freight and \$6.00 storage. I sent him \$937.28. What was his rate of commission? Ans. 2 per cent.

DECIMALS**Division of Decimals****FIND QUOTIENTS**

- | | |
|-------------------|-----------|
| 1. 4.199 by 1.9 | Ans. 2.21 |
| 2. .20956 by .169 | Ans. 1.24 |
| 3. 27.839 by 2.87 | Ans. 9.7 |

Multiplication of Decimals**FIND PRODUCTS**

- | | |
|-------------------|-----------------|
| 1. .089 x 60 | Ans. 5.34 |
| 2. 72.184 x .0025 | Ans. .18046 |
| 3. 85.004 x 26.09 | Ans. 2217.75436 |

Subtraction and Addition of Decimals**ADD**

$$\begin{array}{r}
 1. \quad 3.7 \\
 \quad 5.06 \\
 \quad 8.023 \\
 \quad 9.04 \\
 \hline
 \end{array}$$

Ans. 25.823

SUBTRACT

$$\begin{array}{r}
 2. \quad 225.5 \\
 \quad 97.439 \\
 \hline
 \end{array}$$

Ans. 128.061

FRACTIONS**Decimal Fraction****CHANGE TO COMMON FRACTION**

$$1. \quad .37 \frac{1}{2} \qquad \text{Ans. } \frac{3}{8}$$

$$2. \quad .83 \frac{1}{3} \qquad \text{Ans. } \frac{5}{6}$$

CHANGE TO DECIMALS

$$1. \quad 17/27 \qquad \text{Ans. } .6296 \frac{8}{27}$$

$$2. \quad 1/60 \qquad \text{Ans. } .0166 \frac{2}{3}$$

Addition and Subtraction of Fractions**FIRST ADD; THEN SUBTRACT**

$$\begin{array}{r}
 1. \quad 5 \frac{3}{4} \\
 \quad 2 \frac{1}{2} \\
 \hline
 \end{array}$$

Ans. $8 \frac{1}{4}$; $3 \frac{1}{4}$.

$$\begin{array}{r}
 2. \quad 54 \frac{11}{12} \\
 \quad 46 \frac{5}{13} \\
 \hline
 \end{array}$$

Ans. $101 \frac{47}{156}$; $8 \frac{83}{156}$.**TAXES**

1. Frank Keller's real property is assessed at \$5200, and his personal property at \$800. The tax rate in his city is 13 mills. Find his tax, including \$1, poll tax.

\$5200 plus \$800 equals \$6000, assessed valuation. $.013 \times \$6000$ equals \$78, 13 mills tax rate. \$78, plus \$1, equals \$79, total tax.

1. The assessed valuation of a town is \$900,000 and the amount of taxes to be raised is \$16,200. What is the rate of taxation and what is Mr. Owen's tax who owns property assessed at \$10,000 and personal property assessed at \$2500?

Ans. .018; \$225.

DENOMINATE NUMBERS

1. Washington was born February 22, 1732; he was inaugurated President April 30, 1789. How old was he when he became President?

Ans. 57 yrs. 2 mo. 8 days.

2. Find the sum of 18 T. 12 cwt. 50 lb. 15 oz., 25 T. 12 cwt. 19 lb. 13 oz., 15 T. 14 cwt. 35 lb. 9 oz., 20 T. 18 cwt.

Ans. 80 T. 17 cwt. 6 lb. 5 oz.

3. Find the sum of 12 bu. 3 pk. 7 qt., 25 bu. 5 qt., 8 bu. 2 pk. 1 pt., 48 bu. 3 pk., 42 bu. 1 pk. 2 qt., 48 bu. 3 pk. 6 qt.

Ans. 186 bu. 2 pk. 4 qt. 1 pt.

4. Reduce to lower denominations: 2 wk. 5 da. 13 hr.

Ans. 469 hrs.

5. Divide 153 mi. 313 rd. 3 yd. 2 ft. by 11.

Ans. 13 mi. 319 rd. 2 yd. 1 ft.

6. Multiply 12 bu. 3 pk. 2 qt. 1 pt. by 8.

Ans. 102 bu. 2 pk. 4 qt.

7. From 4 mi. 126 rd. 4 yd. 6 in., take 2 mi. 140 rd. 3 yd. 2 ft. 8 in.

Ans. 1 mi. 306 rd. 10 in.

SIMPLE INTEREST

FIND THE INTEREST AND AMOUNT AT 6% ON:

1. \$500 for 6 months and 15 days. Ans. \$16.25; \$516.25

2. \$755 for 1 yr. 9 mo. 6 da. Ans. \$80.03; \$835.03

PROMISSORY NOTES

Mr. James H. Ames, a grocer, Salem, Oregon, has an account of \$52.00 against Robert Patterson for groceries. and Mr. Ames asks Mr. Patterson to give him a note at 6 per cent interest for the amount of the bill.

\$52.00	Salem, Oregon, Nov. 21, 1917.
Six months after date.....	I.....promise to
pay to the	
order of.....	James H. Ames.....
Fifty Two.....	Dollars
Value received, with interest at 6 per cent.	
	Robert Patterson.

MENSURATION**Lumber**

A board foot is a board 1 ft. long, 1 ft. wide and 1 in. thick. The number of board feet in a piece of lumber is found by multiplying the number of board feet in one surface by the number of inches in thickness.

FIND THE NUMBER OF BOARD FEET IN THE FOLLOWING:

1. 1 board 10 ft. long, 1 1/2 ft. wide, and 1 in. thick.
Ans. 15 board ft.

2. 4 boards 16 ft. x 1 1/2 ft. x 1 1/2 in.
Ans. 96 board ft.

FIND THE COST AT \$35 PER M., OF:

1. 50 boards, 16 ft. long, 12 in. wide and 1 in. thick.
Ans. \$28

TRIANGLES

The area of a triangle is equal to the product of one half the base times the altitude.

FIND THE AREA OF THE FOLLOWING TRIANGLES:

1. Base 15 ft., altitude 8 ft. Ans. 60 sq. ft.

2. Base 20 ft., altitude 14 ft. Ans. 140 sq. ft.

3. Mr. Smith's farm is in the form of a rectangle 80 rods long and 40 rods wide and has a running stream across one corner. If the corner cut off by the stream is 58 rods long and 24 rods wide, find the approximate area of each part.

Ans. 696 sq. rd.; 2504 sq. rd.

The square on the Hypotenuse of a right triangle equals the sum of the squares described on the other two sides.

4. Find the hypotenuse of a right triangle whose altitude is 6 ft. and whose base is 8 ft. Ans. 10 ft.

5. A has a field 40 rd. long and 30 rd. wide. B has a square field whose side equals the diagonal of A's field. What is the difference in the area of the two fields?

Ans. 1300 sq. rd.

A PARALLELOGRAM is a quadrilateral whose opposite sides are parallel.

The area of a parallelogram is found by multiplying the base times the altitude.

FIND THE AREA IN ACRES OF:

1. A parallelogram whose base is 140 rds. and altitude 60 rd. Ans. 52 1/2 acres.

The area of a trapezoid is found by multiplying the altitude times one half of the sum of the parallel sides.

1. The parallel sides of a trapezoid are 38 in. and 62 in. and its altitude is 21 inches. Find its area in sq. inches.

Ans. 1050 sq. in.

CIRCLES

The CIRCUMFERENCE of a circle is found by multiplying the diameter by 3.1416.

The **DIAMETER** of a circle is found by dividing the circumference by 3.1416.

The **AREA OF A CIRCLE** is found by multiplying the circumference by one half the radius.

The area of a circle equals .7854 of the circumscribed square.

The **VOLUME OF A CYLINDER** is found by multiplying the area of the base times the height of the cylinder.

FIND THE VOLUME OF A CYLINDER 3 FT. IN DIAMETER AND 5 FT. HIGH.

$3^2 \times .7854$ equals 7.0686 sq. ft. area of base.

5 ft. \times 7.0686 sq. ft. equals 35.343 cu. ft., the volume of the cylinder.

FIND THE VOLUME OF CISTERNS, SILOS, GAS TANKS, ETC.,

1. D. 15 ft., height 18 ft. Ans. 3,180.87 cu. ft.

2. D. 25 ft., height 30 ft. Ans. 14,726.25 cu. ft.

A cord of wood contains 128 cu. ft., as

A pile of wood 4 ft. wide, 4 ft. high and 8 ft. long is equal to one cord.

BINS AND TANKS

A standard bushel contains 2150.42 cu. in.

231 cu. in. equal 1 gal.

31 1 2 gal. equal 1 bbl.

FIND TO HUNDREDTHS THE NUMBER OF BUSHELS IN:

1. A bin 20 ft. by 10 ft. by 5 ft.

Ans. 803.56 plus. bu

2. A metal trough for watering cattle is 12 ft. long, 3 ft. wide and 20 in. deep. Find the number of gallons it holds.

Ans. 448.83

Approximate Measurements

1 bu. shelled grain	equals	1 1 4 cu. ft.
1 bu. apples	equals	1 5/9 cu. ft.
1 bbl.	equals	4 1/5 cu. ft.
1 ton soft coal	equals	42 cu. ft.
1 ton hard coal	equals	35 cu. ft.
1 ton clover hay	equals	550 cu. ft.

1. Estimate the number of tons of clover hay in a mow 60 ft. by 18 ft. by 16 ft. Ans. 31 23/55 T.

2. Estimate the number of bushels in a bin for oats 14 ft. long and 10 ft. wide, if the bin is filled with oats to a depth of 6 ft. Ans. 672 bu.

DISCOUNT

1. A piano listed at \$1350 was bought at a discount of 20 per cent and 10 per cent. How much was it bought for? Ans. \$972.

GAIN IN PER CENT

1. A man paid \$5000 for a house. For enlarging and repairing it he spent 40 per cent of this sum. He then sold it for \$7840. What per cent did he make? Ans. 12 per cent.

2. A fruit merchant bought 120 bbl. of apples for \$360. He sold them at a gain of 55c per barrel. What was his gain per cent? Ans. 18 1/3 per cent.

FIRE INSURANCE

The premium is the sum paid for the Insurance.

What is the premium on the following policy?

1. \$14,500 at 1 3/4 per cent Ans. \$253.75.

2. A school board pays annually \$45.00 for \$6,000 of Fire Protection on a school building. Find the rate of premium. Ans. 3/4 per cent.

3. A vessel worth \$27,000 is insured for 2/3 of its value

at $3\frac{1}{4}$ per cent. In case of ship-wreck, what is the Company's loss? What is the owner's loss

Ans. \$17,415; \$9585.

GREATEST COMMON DIVISOR

FIND THE GREATEST COMMON DIVISOR OF:

- | | |
|------------------|----------|
| 1. 56, 98, 154. | Ans. 14. |
| 2. 42, 63, 189. | Ans. 21. |
| 3. 54, 216, 360. | Ans. 18. |

LEAST COMMON MULTIPLE

FIND THE LEAST COMMON MULTIPLE OF:

- | | |
|-------------------|------------|
| 1. 24, 48, 72. | Ans. 144. |
| 2. 36, 70, 105. | Ans. 1260. |
| 3. 120, 225, 540. | Ans. 5400. |

PLASTERING AND PAINTING

1. Allowing nothing for openings, how much will it cost to kalsomine the walls and ceilings of a room 20 ft. long, 16 ft. wide and 12 ft. high, at 12 cents per sq. yd?

Ans. \$15.79

2. Find the cost of painting both sides of a tight board fence 150 ft. long and 8 ft. high, at 20 cents per sq. yd.

Ans. \$53.34

ROOFING AND FLOORING

1. Each of the two slopes of a roof is 60 ft. long and 20 ft. wide. Find the cost of covering them with tar paper at \$5.60 per square. (a square equals 100 sq. ft.)

Ans. \$134.40.

250 shingles equal 1 bunch.

800 shingles will lay 100 sq. ft. or one square.

2. Allowing nothing for waste, how many bunches of shingles are required to cover a barn roof 35 ft. in width

on each side and 70 ft. in length. Find the cost at \$1 per bunch. Ans. 157 bunches. \$157.

Ans. 157 bunches. \$157.

PAPERING AND CARPETING

A single roll of paper is 8 yds. in length and usually 18 in. in width. A double roll is 16 yds. in length.

1. Estimate the number of double rolls of paper required for a ceiling 18 ft. by 22 ft., strips running lengthwise. Ans. 6 double rolls.

Ans. 6 double rolls.

2. A dining room 15 ft. by 22 ft. is 11 ft. from base-board to ceiling. It has four openings $3\frac{1}{2}$ ft. by 7 ft. Estimate the paper required for it. Strips on ceiling running lengthwise. Ans. 15 double rolls.

Ans. 15 double rolls.

3. How much carpet 27 in. wide, laid the long way of the room is required for a room 18 ft. long and 15 ft. wide, allowing 12 in. on each strip except the first for matching.

Ans. 44 yards.

PERCENTAGE AND INTEREST

1. I gained 35 per cent by selling an article for \$4.05.
How much did it cost? Ans. \$3.

Aus. \$3.

2. A laborer had his wages twice increased 10 per cent. If he now receives \$2.42 a day, what were his wages before they were increased? Ans. \$2.

Ans. \$2.

3. A receives \$1,600 salary, which is 60 per cent more than B receives. What salary does B receive?

Ans. \$1,000

4. I sold two lots for \$1200 each; on one I gained 25 per cent, and on the other I lost 25 per cent. Did I gain or lose, and how much? Ans. \$160, loss

Ans. \$160. loss

RATIO AND PROPORTION

The **extremes** are the first and the fourth terms of a proportion; the **means** are the second and third terms.

In every proportion the product of the extremes is equal to the product of the means.

FIND THE VALUE OF "X" THE UNKNOWN TERM:

- | | |
|-------------------------|-------------|
| 1. 60 : 15 equal 75 : X | Ans. 18 3/4 |
| 2. 75 : X equal 90 : 18 | Ans. 15. |
| 3. X : 30 equal 8 : 48 | Ans. 5. |

It is estimated that 25 men can build a bridge in 18 days. How long at the same rate will it take 15 men to build it?

Ans. 30 days.

SQUARE ROOT

FIND THE SQUARE ROOT OF 2134.44.

	40 ²	2134.44	46.2
		1600	
trial divisor, 2 x 40 equal	80	534	
	6		
		516	
complete divisor	86		
Trial divisor 2 x 460	920	1844	
	2	1844	
complete divisor	922		

FIND THE SQUARE ROOT OF THE FOLLOWING:

- | | |
|------------|-----------|
| 1. 136161 | Ans. 369. |
| 2. 20.7936 | Ans. 4.56 |

All students should know the following tables:

Liquid Measure	Avoirdupois Wt.	Measure of Time
Cubic Measure	Square Measure	Linear Measure
Dry Measure		

Grammar

SENTENCES

The kinds of sentences according to use are: DECLARATIVE, INTERROGATIVE, IMPERATIVE and EXCLAMATORY.

1. ▲ DECLARATIVE SENTENCE is one used in making a statement.
2. AN INTERROGATIVE SENTENCE is one used in asking a question.
3. AN IMPERATIVE SENTENCE is one used in making a command.
4. AN EXCLAMATORY SENTENCE is one used in expressing strong feeling or emotion.

The kinds of sentences according to form are: SIMPLE, COMPLEX and COMPOUND.

1. A SIMPLE SENTENCE is a thought expressed in words.
2. A COMPLEX SENTENCE is one composed of one independent clause and one or more dependent clauses.
3. A COMPOUND SENTENCE is one composed of two or more independent clauses.

USE OF THIS AND THAT, THESE AND THOSE

THIS and THAT are used with singular nouns and THESE and THOSE with plural nouns.

CASE

1. CASE is that modification of nouns and pronouns which shows their relation to other words.
2. A noun or pronoun used as the subject of a sentence is in the NOMINATIVE CASE.
3. A noun or pronoun used as the object of a verb or preposition is in the OBJECTIVE CASE.
4. A noun or pronoun used to denote possession is in the POSSESSIVE CASE.

PHRASES

1. A PHRASE is a group of words properly put together but not having a subject and predicate.

2. AN ADJECTIVE PHRASE is a phrase modifying a noun or pronoun.

3. AN ADVERB PHRASE is a phrase modifying a verb, an adjective, or an adverb.

SUBJECT AND PREDICATE

1. The SUBJECT is that part of the sentence which tells what we are talking about.

2. The PREDICATE tells something about the subject.

NOUNS

1. A PROPER NOUN refers to some particular thing; as, Chicago, Frank, May.

2. A COMMON NOUN is the name of anything; as, boy, girl, horse.

3. A COLLECTIVE NOUN names a collection of persons, animals, or things; as, audience, herd.

4. A CONCRETE NOUN is the name of a place, person, or a thing that actually exists in space. Girl, tree, barn, etc.

5. AN ABSTRACT NOUN is the name of a quality or condition that does not exist in space; as, beauty, goodness, preserverance, etc.

GENDER

1. GENDER is a distinction of nouns and pronouns in regard to sex.

2. NOUNS and pronouns that refer to males are MASCULINE GENDER; as, father, John, King.

3. Nouns and pronouns that refer to females are of the FEMININE GENDER; as, mother, she, Ruth, Queen.

4. Nouns and pronouns that refer to objects, neither male nor female are of the NEUTER GENDER; as, house, post, tree.

5. Nouns and pronouns that refer to either males or females or both, are of the COMMON GENDER; as, parent, bird, they, children

PERSON

1. PERSON is that property of a noun or pronoun which denotes the speaker, the person spoken to, or the person spoken of.
2. The FIRST PERSON denotes the speaker; as, I, John, am an apostle.
3. The SECOND PERSON denotes the person spoken to; as, John come here; Mr. President, I second that motion.
4. The THIRD PERSON denotes the person spoken of; as, John was a farmer, I heard the thunder roar.

PRONOUNS

1. A PRONOUN is a word used instead of a noun.
2. The ANTECEDENT of a pronoun is the word for which it stands.
3. A PERSONAL PRONOUN is one that indicates its person by its form.
4. Sometimes SELF or SELVES is added to the personal pronouns. They are then called COMPOUND PERSONAL PRONOUNS.
5. An INTERROGATIVE PRONOUN is one used in asking questions; as, who, which and what.
6. An ADJECTIVE PRONOUN is one that performs the offices of an adjective and a noun; as, Some (men) are rich.
7. A RELATIVE PRONOUN is a pronoun used to introduce adjectival clauses, the most commonly used relative pronouns are: who, which and that.

ADJECTIVES

1. An ADJECTIVE is a word used to modify a noun or pronoun.
2. A DESCRIPTIVE ADJECTIVE is one that describes a noun or pronoun by expressing some quality belonging to it; as, good boys, small trees.
3. A DEFINITIVE ADJECTIVE is one that does not express a quality; as, several boys, those trees.
4. Such adjectives as American, Spanish, etc., are called PROPER ADJECTIVES and should begin with a capital letter.

COMPARISON

1. The three degrees of comparison are, POSITIVE, COMPARATIVE and the SUPERLATIVE; as, small, smaller, smallest; beautiful, more beautiful, and most beautiful.

ARTICLES

The adjectives A, AN and THE are sometimes called ARTICLES. A is used before words beginning with a consonant sound, and AN before words beginning with a vowel sound.

VERBS

1. A VERB is a word that denotes action or being.
2. The form of the verb ending in ing and the form used with have are called PARTICIPLES. WALKING is the present participle and WALKED is the past participle of the verb walk.
3. A REGULAR VERB is one that forms its past tense and past participle by adding ed to the present.
4. An IRREGULAR VERB is one that does not form its past tense and past participle by adding ed to the present.
5. An INTRANSITIVE VERB is one that does not require an object to complete its meaning.
6. A TRANSITIVE VERB is one that requires an object to complete its meaning.
7. When the subject denotes the actor, the verb is said to be in the ACTIVE VOICE.
8. When the subject denotes the receiver of the act the verb is said to be in the PASSIVE VOICE.

ADVERB

1. An ADVERB is a word used to modify a verb, an adjective, or an adverb.
2. ADVERBS OF PLACE are adverbs which answer the question, WHERE? as HERE, THERE.
3. ADVERBS OF TIME answer the question when? as NOW, RECENTLY.
4. ADVERBS OF MANNER answer the question, How? as, WELL, BADLY.

NUMBER

1. NUMBER is that modification of a noun or pronoun by which it denotes one or more than one.
2. The SINGULAR NUMBER denotes but one.
3. The PLURAL NUMBER denotes more than one.

FORMING OF PLURALS

1. A, E, I, O and U are VOWELS; the other letters are CONSONANTS.
2. Nouns ending in S, Q, X, SH and CH form their plurals by adding es.
3. Nouns ending in Y preceded by a vowel form the plural by adding s.
4. Nouns ending in Y preceded by a CONSONANT form the plural by changing y to i and adding es.

DISCOURSE

1. DIRECT DISCOURSE is quoting the exact thoughts of one person to another; as, "You are a fine little fellow said he, "Will you let me grind my ax on your grindstone?"
2. INDIRECT DISCOURSE is quoting the thoughts of another without giving the exact words; as, The man said that I was a fine little fellow and asked me to let him grind his ax on the grindstone.

CLAUSES

1. A CLAUSE is a group of words containing a subject and a predicate.
2. SUBORDINATE CLAUSES are clauses containing a subject and predicate but will not stand alone; as, whom we saw.

MOOD

1. MOOD is that inflection of the verb which denotes the manner of assertion.
2. INDICATIVE MOOD is used in asserting facts.
3. THE IMPERATIVE MOOD is used to express a command or an entreaty.
4. The SUBJUNCTIVE MOOD expresses a wish or an uncertainty.

CONJUNCTIONS AND INTERJECTIONS

1. A CONJUNCTION is a word used to connect words, phrases and clauses.

2. An INTERJECTION is a word used to denote strong feeling or emotion.

PARTS OF SPEECH

- | | | | |
|-------------|------------|-----------------|-----------------|
| 1. Noun. | 3. Verb. | 5. Adjective. | 7. Conjunction. |
| 2. Pronoun. | 4. Adverb. | 6. Preposition. | 8. Interjection |

CORRECTIVE USAGE

Sit, set, sat, may, can, laid, lain. lay, lies, shall, will, lying, teach, went, gone, saw, seen, learn, sung, done, did.

1. SIT here girls and rest awhile.
2. He SET the bucket on the porch.
3. He SAT where I asked him to sit.
4. Yes, he MAY go tomorrow.
5. CAN you go home tonight?
6. The hen LAID an egg this morning.
7. Here LIES a large rock. Here it has LAIN for many years.
8. Mary LAY on the sofa all forenoon.
9. LIE down Mary and rest yourself.
10. I think I SHALL go home tomorrow.
11. I WILL fix it for you.
12. John LAY on the ground. He is LYING there now.
13. May I TEACH the class today?
14. I WENT home yesterday.
15. I have GONE home twice this month.
16. I SAW Frank this morning.
17. I have SEEN Frank.
18. It is hard for Birtha to LEARN.

19. I have SUNG many times.
 20. I DID the work yesterday.
 21. I have DONE my work.

USE OF SHALL AND WILL

To represent simple expectation on the part of the speaker, use shall in the first person, and will in the second and third persons; as, we shall, you will, they will.

To represent determination, desire, willingness, or promise on the part of the speaker, use will in the first person, and shall in the second and third persons; as, we will, you shall, they shall.

PRINCIPAL PARTS OF VERBS

PRESENT	PAST. IND.	PERFECT PART.
Do	did	done
Eat	ate	eaten
Fly	flew	flown
Sing	sang	sung
Lie	lay	lain
Get	got	got
Give	gave	given
Go	went	gone
See	saw	seen
Run	ran	run
Take	took	taken
Write	wrote	written
Lay	laid	laid
Learn	learned	learned
Sit	sat	sat
Teach	taught	taught
Ring	rang	rung

Drawing and Writing

DRAWING is given in schools in order to develop coordination between the hand and the eye.

DRAWING is important because it is a graphic expression of one's thoughts.

1. PERSPECTIVE is arranging objects in their right relation to make them look correct and real.

2. CONSTRUCTION LINES are lines used to help in the making of drawings.

3. The AXIS is the main body of the drawing, as the stem of a plant.

4. The CENTER OF VISION is the main part of a picture or the part which draws one's attention most.

5. The SIX SPECTRUM COLORS are red, orange, yellow, green, (blue,) indigo and violet.

6. The PRIMARY COLORS are red, yellow, violet (blue).

7. The SECONDARY COLORS are orange, green, indigo.

One should strive to be a GOOD PENMAN in order that he may write with neatness, speed and legibility.

The THREE ESSENTIALS in writing are: speed, neatness and legibility.

Every pupil should know the CORRECT POSITION to use in writing.

Reading

READING is the process of conveying to the mind by sight written or printed words or symbols.

A child must get the THOUGHT, hold the THOUGHT and express the THOUGHT.

1. INFLECTION is the rising and lowering of the voice.
2. EMPHASIS is putting particular stress on certain words, phrases and sentences.
3. ARTICULATION is the pronouncing of each word or syllable plainly and distinctly.
4. POETRY is writing made up of verses written in such a way as to produce a rhythmic effect.
5. PROSE is ordinary written or spoken language.
6. The CLIMAX is the most exciting part or the part at which the interest of the reader is meant to be at its highest point.
7. A SIMILE is unlike things compared to be the same.
8. PERSONIFICATION is giving life to rocks and other lifeless things in reading.
9. PARAPHRASING is dividing lines and verses into parts and explaining each part.
10. SYNONYMS are different words whose meaning is about the same. As small and little.
11. A DERIVATIVE WORD is a word derived from another.
12. HOMONYMS are words of the same sound but different meaning; as, ale, ail; gait, gate.
13. ACCENT is a stress laid by the voice upon a particular syllable of a word.
14. ANTONYMS are words of opposite meaning; as, big, little.

History

IMPORTANT MEN

1. MAGELLAN was a brave Portugese navigator whose ship sailed around the world. He was killed in the Philippines.

2. DE SOTA was a brave Spanish sailor who was buried in the Mississippi.

3. CORONADO was a great Spanish officer.

4. PONCE DE LEON was a Spaniard. He discovered Florida.

5. FRANCIS DRAKE was an English sailor.

6. HENRY HUDSON was an English navigator who discovered the river which bears his name.

7. CARTIER discovered the St. Lawrence river.

8. CHAMPLAIN was a French explorer.

9. LA SALLE was a great explorer in New France.

10. SIR WALTER RALEIGH was an English ship captain.

11. JOHN STEPHENS built the first steam locomotive of America in 1826.

12. JEFFERSON DAVIS was a colonel in the west, and later held some offices. He was president of the South.

13. U. S. GRANT was a general on the Union side.

14. HARRIET BEECHER STOWE wrote Uncle Tom's Cabin.

15. PATRICK HENRY was a lawyer of the colonies, who, at the first Continental Congress shouted, "GIVE ME LIBERTY OR GIVE ME DEATH."

16. JOHN J. PERSHING was commander of the United States army in the late war.

The WHIGS were men known as National Republicans up until 1834.

The CAVALIERS were the "Well-to-do" class who fought for the king.

IMPORTATION OF NEGROES. The first Negro Slaves were brought from Africa to Virginia in 1619.

THE NAMING OF MARYLAND. Maryland was named by George Calvert, the first Lord Baltimore. The Catholics were being harshly treated in England so they founded the Maryland colony that they might have their religious beliefs and live in peace.

THE SETTLEMENT OF VIRGINIA. This colony was founded about the year 1606 by the Plymouth Company. The people were seeking gold and silver which they thought was abundant in this land. At first almost all the people died of starvation and the remaining few were much discouraged. The colony, however, was able to survive by the brave and energetic leadership of Captain John Smith. Finally the people began tobacco-raising, establishing large plantations and began to progress rapidly, for most of them were interested in growing tobacco. About this time a representative Government was started and the colony flourished.

THE PROTESTANTS were people who did not believe in the same religion as did the people of the Roman church, consequently they suffered persecution.

THE PURITANS were the people who wanted to remain in the church of England, but they sought to purify it of certain ceremonies which they thought were too much like those of the Roman church.

THE SEPARATISTS wanted to separate from the church of England and become an independent congregation.

THE PILGRIMS were poor of purse but high of character. They were breaking the law, and worshipping God after their own manner. They came to America from Holland for freedom of worship, landing at Plymouth, December, 1620. They, however, originally came from England, but did not want their children to grow up like the children of Holland.

THE MAYFLOWER was the ship which brought the Pilgrims to America in 1620.

THE QUAKERS were people who were subjected in England and who later came to America and settled in Pennsylvania.

The three groups of colonies were the SOUTHERN, NEW ENGLAND, and the MIDDLE COLONIES. The people in each of the colonies differed in their customs, manners and occupations.

THE COLONIES COMPARED:

The Southern Society—

1. Well educated.
2. Stately manners.

3. Hospitable to strangers.
4. Dressed well.
5. Kept black servants.
6. Mostly planters and fur traders.
7. English were the most numerous.

New England Society—

1. Stood for their rights.
2. The rich sat in the front pews at church.
3. Mostly English.
4. No one idle.
5. Opposed slavery.
6. Manufacturing and milling.
7. Small farms.

Society in the Middle Colonies—

1. Many Nationalities.
2. Strongly Democratic.
3. Farming the chief industry.

WASHINGTON'S WINTER JOURNEY. In the year 1753. George Washington at the age of twenty-one together with a half dozen companions clothed in leather suits, started out on horseback from Virginia. His mission was to gain information about French military activities in the northwest. They had a long journey before them which took them over snow clad mountains, through thick forests and across streams filled with broken ice.

THE STAMP ACT, was passed in 1765 for the purpose of raising money to defray expenses of the Standing Army. Every newspaper, pamphlet, advertisement, bill of merchandise and legal document had to bear a government stamp. The price of the stamps ranged all the way from one cent each to fifty dollars each according to the importance of the paper to which they were affixed.

The colonists at once protested against paying taxes except those which were approved by their own representatives.

In 1765 the Stamp Act Congress was held at New York at which nine of the thirteen colonies were represented. This body declared

that it was loyal to the king but would allow only their own representatives to tax them.

THE FIRST CONTINENTAL CONGRESS was held in September, 1774 at Philadelphia. The Congress sent to the king a "Declaration of Rights and Grievances."

THE DECLARATION OF INDEPENDENCE was signed July 4, 1776.

A PROTECTIVE TARIFF was passed in 1816, because goods manufactured in foreign countries could be imported into the United States and sold at a lower price than our American manufacturers could sell their own products. By this Protective Tariff a heavy duty was placed on foreign imports making the foreign goods cost the merchant as much as American goods.

THE ERA OF GOOD FEELING was during Monroe's administration. Every one seemed to be prosperous and happy.

THE ERIE CANAL was opened during Adams' administration. This canal connected the Hudson river with Lake Erie, a distance of three hundred sixty-three miles.

"THE SPOILS SYSTEM." Before Jackson's presidency the federal government had employed clerks, postmasters and other officials regardless of their party. Jackson turned out of office about a thousand government employees who had not voted for him and filled the vacancies with his own political friends. This was the beginning of the "Spoils System." This system is often spoken of as "To the Victor belong the spoils."

TYLER WAS NOT ELECTED PRESIDENT, but instead as vice president. Harrison was elected as president, but soon died and Vice President Tyler took his place.

TEXAS WAS ANNEXED to the United States in March 1845. The Republic of Texas owed \$7,500,000 which the United States paid although it was a large sum. The people called Texas "Taxes."

"FIFTY-FOUR FORTY OR FIGHT." One of the planks in the Democratic platform in 1844 declared that the territory of Oregon as far north as 54 degrees 40 minutes belonged to the United States. This brought about the above saying.

LAND ACQUIRED FROM MEXICO BY U. S. In February 1848 the United States paid Mexico \$15,000,000 for the land which lay north of the Rio Grande and Gila rivers. The United States also paid Americans \$3,250,000 for claims held against Mexico. This added to our national domain 529,189 square miles.

DISCOVERY OF GOLD IN CALIFORNIA. In 1848 some shining particles of metal that looked like gold were found along a stream on John A. Sutters' land in California. This caused gold seekers from all parts of the land to rush into California. Little gold, however, was found by these seekers.

THE UNDERGROUND RAILROAD. The people of the north were much in sympathy with the slaves, and a slave who once got into the northern territory was hidden and smuggled through to Canada.

"UNCLE TOM'S CABIN." In the midst of the slavery discussion Harriet Beecher Stowe's "Uncle Tom's Cabin" appeared. This was published in book form about the life of the blacks in the south.

THE REPUBLICANS developed from the WHIG party separating from the whigs because they opposed slavery. Thus, the Republican party was formed as opposing slavery.

JOHN BROWN'S RAID. Brown was strongly against slavery so he organized a small army to provide the negroes with guns and to rebel against their masters. Brown was caught by the Southern whites and was hanged on a charge of treason. This disturbed the north more than ever against the south.

THE DUEL BETWEEN THE MONITOR AND MERRIMAC. The Merrimac belonged to the confederates and was covered with iron. It was said that she resembled the roof of a barn floating on the water. The Monitor belonged to the Union side and also was covered with iron. Neither ship proved the superior at first, but finally the Merrimac having lost her ram withdrew and the Union fleet was saved.

THE EMANCIPATION PROCLAMATION. In September, 1862, President Lincoln gave out the famous document which declared that on the following New Years day all persons held as slaves within the Confederate states "shall be then, thence forward, and forever free."

SHERMAN'S MARCH FROM ATLANTA TO THE SEA. September, 1864, Sherman took Atlanta and started his march from Atlanta to the sea. His army numbered 62,000, horsemen and infantry. In marching they cut off all telephone wires, burned houses and destroyed everything within their reach. They acquired food as best they could and slept on the ground. About the middle of December they took Savannah and sent a letter to President Lincoln presenting him a Christmas gift, the city of Savannah.

THE ASSASSINATION OF PRESIDENT LINCOLN. On the night of April 14, 1865, Lincoln was attending a play at Ford's theater

in Washington, when an actor named John Wilkes Booth who was in sympathy with the south shot him through the brain and at once fled.

THE CIVIL SERVICE REFORM ACT. This act was adopted in 1883 providing for a board of commissioners to examine applicants for civil service offices and that a man to have such an office must first pass an examination. A man once passing this examination and proving himself eligible for the position could remain in office as long as he did the proper thing.

THE COLUMBIA EXPOSITION OF CHICAGO. In 1893 President Cleveland was called upon to open at Jackson Park, on the lake front in Chicago, a great fair known as the World's Columbian Exposition. This was to celebrate the four-hundredth anniversary of the discovery of America by Columbus.

THE LOUISIANA PURCHASE. The United States bought from France a very large tract of land extending from the Mississippi river to the Rocky mountains, omitting Texas, for the sum of \$15,000,000.

THE LEWIS AND CLARK EXPEDITION, 1804. These men were sent out to explore the land which the United States had just bought from France.

THE REVOLUTIONARY WAR, 1775-83, was fought between the Thirteen Colonies and England because England taxed the Americans and would not give them their rights.

Washington was commander of our forces. The British lost 102 ships and the Americans lost 24.

July 4, 1776, The Declaration of Independence was signed, declaring that the people would fight for their freedom. At first the British were successful but at last America overcame them and won.

Peace was signed at Paris, 1783, by Franklin, Adams and Jay.

SOME BATTLES OF THE REVOLUTIONARY WAR:

1. Bunker Hill, 1775. Americans were defeated as they ran out of powder and had to fight with their gunstocks.

2. Trenton. Washington crossed the Delaware on Christmas night, surprised the Hessian troops and captured 1,000 men.

3. Brandywine, 1777. Americans defeated.

4. Battle of Stony Point, 1779. Americans won.

5. Cowpens. Americans won.

6. King Mts. Americans won.

SOME AMERICANS IN THE REVOLUTIONARY WAR. Washington, Prescott, Arnold, Montgomery, Sullivan, Franklin, Paul Jones, and Patrick Henry.

THE WAR OF 1812 was between England and the United States because the English would not allow our ships upon the ocean without searching them, and they also urged the Indians to attack us.

England had 1200 ships while we had only 16 but in a years time we had destroyed her naval supremacy. During the first year the English won on land, but after that the Americans overcame them. They burned our capitol in August, 1814. Peace was signed at Ghent, Belgium, the same year. We had won the war which meant so much to us. We now had a right on the sea and the people were always willing to fight for the United States.

SOME AMERICAN MEN IN THE WAR OF 1812:

1. Perry fought a great battle on Lake Erie defeating the British. On his flag were the following words, "DON'T GIVE UP THE SHIP."

2. Lawrence fought on the sea defeating the English.

3. Andrew Jackson at New Orleans defeated the British, killing 2,036 men while he lost only 71 men. Peace was then signed.

THE CIVIL WAR, 1861-1865, was fought between the North and the South because they did not believe alike. Several of the states were withdrawing from the Union. The South was in favor of slavery and the North was opposed to it. Lincoln was president. The South held together better than the North, but neither were prepared.

The South fired the first shot of the war, on Fort Sumter, and won over the North. The Southerners were called Confederates and the Northerners Federalists. Lincoln called for 75,000 men, but 183,000 were soon under arms for the Union.

The North wore blue uniforms and the South wore grey. At first the Southerners were victorious, but in the end the North defeated them. When the war began the United States had 90 vessels but only 15 of them were able to fight. The expense of the war was furnished by taxes, issuing bonds and borrowing money from foreign countries.

SOME BATTLES OF THE CIVIL WAR:

1. Fort Sumter. No lives lost.
2. Bull Run. North defeated.
3. Gettysburg. The greatest battle of the war.
4. Chattanooga. Union army defeated.
5. Hampton roads. On the water two iron clad vessels fought, the Monitor and the Merrimac. The Monitor won.
6. Battle of Pittsburg Landing. Confederates driven back.

SOME MEN OF THE NORTH: Grant, Sheridan, McClellan, Meade, Faragut, Hooker and Sherman.

SOME MEN OF THE SOUTH: Lee, Johnston, Bragg, Hood and Davis.

THE SPANISH AMERICAN WAR, 1898, was between Spain and the United States because Cuba which belonged to Spain was not given her rights and the people were nearly starved.

The United States feeling sorry for Cuba sent her food and medicine, and in 1898 Spain sank our Battleship Maine and 206 men in the Harbor of Havana.

The war began April 21, 1898, and a peace protocol was signed August 12, 1898. War lasted only about five months. The United States won the war.

RESULTS OF THE SPANISH AMERICAN WAR—

1. Spain surrendered Cuba to the Cubans.
2. The Phillipines were sold to the United States for \$20,000,000.
3. Porto Rico became the property of the United States.
4. Guam was also ceded to United States by Spain.

SOME BATTLES OF THE WAR OF 1898—

1. Battle of Manila, 1898. Dewey with a small fleet, easily destroyed a much larger but inferior Spanish fleet in Manila harbor.
2. Capture of Santiago.

SOME MEN OF THE WAR OF 1898. Dewey, Miles, Sampson, Shafter.

THE PANAMA CANAL was dug between North and South America in the land of Panama. It is valuable as ships can save many miles by passing through it.

THE ARTICLES OF CONFEDERATION, 1776-1781. The thirteen states agreed to form a government under the so called "Articles of Confederation." Some states did not want to sign them at first, but finally they did.

They were very poor and a failure from beginning to end as the laws could not be enforced. Congress consisted of one house under a president elected each year. Each state could send not more than seven men or less than two men to congress each year.

When Congress was in session doors were closed; no spectators allowed to hear what was said, and no report of the debates were allowed to be printed in the papers. Each state had one vote and nine out of the thirteen could pass a law. They had no courts nor judges.

THE CONSTITUTION OF THE UNITED STATES was formed in 1787, making a government for the people, by the people and of the people. It was formed because the Articles of Confederation were a failure. There are eighteen Articles in the Constitution today and all of our laws must be formed under them. Giving the people the right of HEALTH, PROSPERITY, FREEDOM OF WORSHIP,, PEACE, AND HAPPINESS.

SQUATTER SOVEREIGNTY. The states had a right to have slavery or be free by this act.

KANSAS NEBRASKA BILL. This bill was brought about by Douglas. People in Nebraska or Kansas could be free or have slaves.

OMNIBUS BILL—

1. California should come in as a free state.
2. Utah and Mexico could come in without saying about slavery.
3. Texas paid \$10,000,000 to give up claim on New Mexico.
4. No slaves in District of Columbia.

THE FUGITIVE SLAVE LAW. Slaves who escaped from their owners were to be returned to them.

THE WILMOT PROVISIO. David Wilmot did not want slavery in the territory which was won over in the war with Mexico.

THE VIRGINIA AND KENTUCKY RESOLUTIONS, 1798. Laws were passed because of the Alien and Sedition laws. Virginia and Kentucky claimed that the Constitution was a Contract. They also claimed that the Alien and Sedition Laws were unconstitutional.

THE WHISKEY REBELLION, 1794. A tax was placed on Whiskey. The western farmers grew grain and made it into whiskey because it cost so much to get the grain to market. The farmers refused to pay the tax so President Washington called out 12,000 soldiers and made them pay the tax.

WHY THIS CONTINENT WAS NAMED AMERICA. Columbus discovered this continent, but did not know it was so large. He thought it was an island off the coast of Asia. Americus Vesputius was the first to write a description of the newly discovered land, consequently it was named after him "America."

SOME INVENTORS OF AMERICA—

1. Franklin—Printing Press.
2. Whitney—Cotton Gin.
3. Fitch and Fulton—Steamboat.
4. Morse—Telegraph.

EUROPEAN COUNTRIES WHICH EXPLORED HERE—

1. England—Atlantic coast from Maine to Florida.
2. Spain—Florida, Texas and the land southwest of Colorado.
3. France—Mississippi Valley.
4. Holland—New Jersey, Delaware and the Valley of the Hudson River.
5. Sweden—On the Delaware River.

THE THIRTEEN ENGLISH COLONIES—

1. Virginia.
2. New York.
3. Massachusetts.

4. New Hampshire.
5. Maryland.
6. Connecticut.
7. Rhode Island.
8. Delaware.
9. North Carolina.
10. New Jersey.
11. South Carolina.
12. Pennsylvania.
13. Georgia.

SETTLEMENT OF PENNSYLVANIA. The king of England owed William Penn's father some money, and paid it by giving William a tract of land in America, which he named Pennsylvania. He was a good manager and soon founded the City of Philadelphia. Penn was kind to every one.

SMUGGLING. By smuggling we mean trying to keep something hidden from others as if we stored flour in war times.

TAXATION WITHOUT REPRESENTATION. Before the United States established a firm government the people were forced to pay large taxes without any say at all. Today we pay taxes but we are represented in Congress and have a right to vote.

THE STAR SPANGLED BANNER was written by Francis Scott Key while a captive in the war of 1812.

PREPAREDNESS. Keeping an adequate army and navy, guns, etc., so if war should be declared we would be prepared to fight.

PATENT. When an invention is made the inventor is given the exclusive right of the manufacture and sale of the invented article for a stated period of time. This right is given by the United States Patent Office.

Explorer	Sailed	Under	Important Result
Gilbert -----	1483----	English Flag--	Failed
Raleigh -----	1484----	English Flag--	Explored North Carolina
Columbus -----	1492----	Spanish Flag--	Discovered America
John Cabot ----	1497----	English Flag--	Discovered Newfoundland
Ponce De Leon--	1513----	Spanish Flag--	Discovered Florida
Balboa -----	1513----	Spanish Flag--	Discovered South Sea
Vespucius -----	1519----	Spanish Flag--	Explored America
Cortez -----	1519----	Spanish Flag--	Explored Mexico
Magellan -----	1519----	Spanish Flag--	Sailed around the World
Cartier -----	1534----	French Flag --	Explored St. Lawrence River
De Sota -----	1541----	Spanish Flag--	Discovered Mississippi River
Drake -----	1577----	English Flag--	Discovered harbor near San Francisco.
John Smith ----	1607----	English Flag--	Founded Jamestown
Champlain-----	1608----	French Flag --	Founded Quebec
Hudson-----	1609----	Dutch Flag ---	Discovered Hudson River

THE DRED SCOTT DECISION. Scott and his wife were slaves in Missouri where slavery existed, but later his master moved to Illinois, a free state. Scott then claimed he should be free. He was tried in court but still remained a slave. The court decided a slave was property and a man could take it with him wherever he went.

PRESIDENTS WHO HAVE DIED IN OFFICE—

1. Harrison.
2. Lincoln (Martyred.)
3. Taylor.
4. Garfield (Martyred.)
5. McKinley (Martyred.)

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THE JAMESTOWN COLONY. Started in 1607. The people all put their grain in a common storehouse. They nearly all perished, but finally John Smith came and restored the colony. He had great tact with the Indians but he became sick and the people started to

leave, but just at that time Lord Delaware arrived with supplies. Jamestown then grew for a while but is nearly all gone today.

WASHINGTON'S CABINET—

Hamilton, Secretary of Treasury.

Jefferson, Secretary of State.

Knox, Secretary of War.

THE FIRST CAPITAL OF THE UNITED STATES was at Philadelphia in 1790.

THE X Y Z MISSION. In 1897 three men were sent to settle trouble with France and were met by three French agents called Mr. X, Mr. Y and Mr. Z.

THE ALIEN LAW. The President was authorized to banish from the country foreigners whose presence was harmful to the nation.

THE SEDITION LAW. The people could not write, publish, or do anything to hinder our government. If they did so they were fined or imprisoned.

THE PURE FOOD AND DRUG ACT. This act seeks to protect us from adulterations in our foods and medicines. It declares that such articles must be offered for sale under their true name.

THE PANAMA CANAL EXPOSITION. The canal was completed in 1914 and on August 15, 1914, it was to be opened to the world. In celebration of this a great "World's Fair" was held in San Francisco in 1915.

THE MONROE DOCTRINE, 1823. President Monroe declared that the United States would not meddle in the political affairs of Europe and that any attempt of European countries to gain possessions in this hemisphere, would be considered an unfriendly act toward the United States.

IMPORTANT DATES—

1492. Columbus discovered America.

1620. Landing of the Mayflower.

1775. Revolutionary War.

1776. Declaration of Independence.
1812. War of 1812.
1865. Close of Civil War and Lincoln Assassinated.
1898. Spanish American War.
1918. November 11, Armistice was signed.

PRESIDENTS OF THE UNITED STATES—

1.	Washington	1789-1797
2.	Adams	1797-1801
3.	Jefferson	1801-1809
4.	Madison	1809-1817
5.	Monroe	1817-1825
6.	J. Q. Adams	1825-1829
7.	Jackson	1829-1837
8.	Van Buren	1837-1841
9.	Harrison—1 month, died.....	1841-
10.	Tyler—3 years and 11 months.....	1841-1845
11.	Polk	1845-1849
12.	Taylor—1 year and 4 months.....	1849-1850
13.	Fillmore—2 years and 8 months	1850-1853
14.	Pierce	1853-1857
15.	Buchanan	1857-1861
16.	Lincoln—1 term and 6 weeks.....	1861-1865
17.	Johnson	1865-1869
18.	Grant	1869-1877
19.	Hayes	1877-1881
20.	Garfield—6 months and 15 days.....	1881-
21.	Arthur—3 years, 5 months and 15 days.....	1881-1885
22.	Cleveland.....	1885-1889
23.	Harrison	1889-1893
24.	Cleveland	1893-1897
25.	McKinley—1 term and 6 months	1897-1901
26.	Roosevelt—1 term, 3 years and 6 months.....	1901-1909
27.	Taft	1909-1913
28.	Wilson	1913-1921
29.	Harding	1921-

PERSHING IN FRANCE. On June 26, 1917, the first American division landed in France. Their Commander General John J. Pershing had preceded them a few days and on July 4th some of them were marched through the streets of Paris.

OUR MILITARY FORCE, APRIL 6, 1917. There were in our military service about 289,000 men—regular army, 127,000; National Guards, 80,000; navy and marines, 82,000. By voluntary enlistment and selective draft we were able to have in France or aboard ships going thither before July 4, 1918, more than a million American soldiers.

THE APPEAL TO DEMOCRACY. Before bringing the full force of the United States into the field, President Wilson tried once more to show the Germans that safety for free government was our single purpose.

GENERAL FOCH was given command over all Allied troops on the Western front.

THE WAR CABINET—

1. McCormack—Chairman of the War Board.
2. War Industries Board—Baruch.
3. Shipping Board—Hurley.
4. Fuel Administration—Garfield.
5. Railroad Administration—McAdoo.
6. Food Administration—Hoover.

THE UNITED STATES ENTERED THE WORLD WAR because the Germans were sinking our ships on the high seas. The Republic also wanted to insure safety of democracy.

Civics

Provisions of the Constitution

(c). The Constitution provides for three departments of the government of the United States:

1. Legislative or Law-making Power } CONGRESS-- { 1. House of Representatives
2. Senate.
2. Executive, or Law-enforcing Power } The President.
3. Judicial or Law-interpreting Power { 1. Courts.
2. Judges.

Provisions of the Constitution Relative to the Congress

- REPRESENTATIVES {
- Chosen by vote of the people every two years
 - Term—Two years.
 - Qualifications { At least 25 years old, 7 years a citizen of the United States, and when elected shall be an inhabitant of the state for which he is chosen.
 - Number—They are apportioned among the several states. Each state shall have at least one. In all there are 432.
 - Sole Power—Impeachment.

SENATE -----	{	Number—Two from each state. 96 in all.
		Term—Six years.
		How chosen. By the legislature of the state and also by direct vote of the state.
		Qualifications { Must be at least 30 years of age and have been a citizen of the United States for at least nine years, and when elected be an inhabitant of the state for which he is chosen.
		Officers—The Vice President of the United States acts as president of the senate, but has no vote unless they are equally divided.
		Sole Powers—To try all impeachments.

Provisions of the Constitution Relative to the President.

PRESIDENT -----	{	Term—Four years.
		How Chosen. By electors who are chosen by the people's vote. Each state has as many electors as it has senators and representatives. It is, however, the people's vote that elects the president, although indirectly.
		Qualifications { He must be at least 35 years of age, having resided in the United States at least 14 years and a natural born citizen of the United States.
		Oath—Before entering office he must take an oath of affirmation.
		Impeachment—He can be removed from office upon conviction of treason, bribery, or other high crimes and misdemeanors.

Some of the Important Powers of Congress

1. To levy and collect taxes.
2. To borrow money on the credit of the United States.
3. To regulate commerce with the foreign nations.

4. To coin money and regulate the value thereof.
5. To establish postoffices and post roads.
6. To declare war.
7. To raise and support armies.
8. To provide and maintain a navy.

Some of the Important Powers and Duties of the President

1. Commander in Chief of the army and navy of the United States.

2. He has power, by and with the consent of 2-3 of the senators to make treaties.

3. He can fill up vacancies that may happen during the recess of the senate.

4. He can from time to time give to congress information of the state of the Union and recommend such measures as he judges necessary.

Salaries of some United States and Nebraska Officials

Office	Salary
President—House and \$25,000 traveling expense (U. S.)----	\$75,000.00
Vice President (U. S.) -----	12,000.00
Senators (U. S.)-----	7,500.00
Congressmen (U. S.)-----	7,500.00
Governor of State (Nebr.)-----	5,000.00
Superintendent of State (Nebr.)-----	5,000.00
Judges of the Supreme Court of the state, each (Nebr.)----	7,500.00

THE AMERICAN LEGION is an organization formed by ex-service men. Any man who enlisted or was drafted into military service is eligible to become a member of this organization. Its purpose is to preserve fellowship among ex-service men and to help maintain law and order.

A POLL TAX is a tax levied upon male inhabitants who have attained a certain age, usually twenty-one years.

Physiology

MUSCLES. There are two kinds. 1. **Voluntary**, which we can control. 2. **Involuntary**, which we cannot control.

THE ORGANS OF CIRCULATION are the: 1. heart, 2. arteries, 3. veins and capillaries.

THE ORGANS OF THE NERVOUS SYSTEM are the: 1. brain, 2. spinal cord and nerves.

THE SPECIAL SENSES are: 1. touch, 2. taste, 3. smell, 4. hearing, 5. sight.

THE ORGANS OF RESPIRATION are: 1. nose; 2. mouth; 3. pharynx; 4. larynx; 5. trachea; 6. bronchial tubes; 7. lungs.

THE ORGANS OF DIGESTION are the: 1. stomach, 2. large and small intestines. The gullet and mouth aid in digestion.

THE SKELETON: 1. head, 2. trunk, 3. limbs.

HYGIENE is the study of the care of our body.

PHYSIOLOGY is the study of the functions and processes of the body.

ANATOMY is studying and examining the parts of the body.

A **NARCOTIC** when taken in small doses will deaden pain, but in large doses produces sleep and sometimes death. Opium and alcohol.

A **STIMULANT** when taken increases our vital action and excites our nerves. Whiskey, coffee, tea, etc.

THE CORPUSCLES are of two kinds, the red and white. They are very small and live in the blood. The red ones which are three times the white in number give the blood color. The white ones try to overthrow disease germs.

ASSIMILATION. The process by which foods are made a part of the living protoplasm.

DIGESTION is the conversion of food by the action of gastric juices into soluble products.

THE PURIFICATION OF BLOOD. The impure blood is sent from the heart to the lungs to be purified.

CATARRH is often spoken of as a cold in the head or an inflammation of the mucous membrane.

FOOD is the victuals we eat to nourish our bodies; as, bread, potatoes, meat, milk, eggs, and butter.

LUNGS are constructed so we may breathe in air; they aid in the purification of the blood.

MILK is one of the most nourishing foods, as we can live on it alone.

ALCOHOL is not a food, but it is a narcotic.

THE BRAIN is a soft mass within the skull. It is the center of the nervous system and the seat of consciousness.

THE BLOOD is a red fluid which circulates through the body. It builds up and repairs the tissues.

MASTICATION is the chewing of our food.

THE AORTA is the largest artery in the body.

EPIDEMIC. When a disease goes over the country spreading it to many people as the "flu" it is called an epidemic.

A DISINFECTANT is something that helps to keep away disease germs. Iodine, peroxide, and formaldehyde.

THE EUSTACHIAN is a tube that runs from the throat to the ear.

THE ALIMENTARY CANAL is the entire channel from the mouth to the anus through which food passes.

COAGULATION is clotting or curdling, as the blood does when one cuts his finger.

THE TEETH are of two kinds, the milk teeth, and the permanent teeth.

THE GLANDS are of many kinds, some of which are: oil glands, sweat glands, and salivary glands.

THE MUCOUS MEMBRANE is continuous with the outside skin. It is the lining of the entire alimentary canal.

THE MODIFICATIONS OF THE BREATH are: sighing, coughing, sneezing, snoring, laughing, crying, hiccoughs, and yawning.

THE FOUR PARTS OF THE HEART are: right ventricles, left ventricle, right auricle and left auricle.

THE NORMAL TEMPERATURE of the body is 98.5 degrees.

THE KINDS OF FOOD are: fats, carbohydrates and proteins.

AN EIGHTH GRADE PUPIL should have nine hours of sleep.

WHAT TO DO FOR

A SPRAIN. Wrap with warm flannel and keep injured part still.

A NOSE BLEED. By pressing the forefinger between the mouth and the side of the nose which is bleeding one can feel the pulsation of a small artery. Press on this artery.

CHOKING. Slap the person between the shoulders and give him bread and water to wash the choking particle down.

A SUNSTROKE. Dash cold water on the head and chest. Carry the patient to the shade and leave him rest.

A SNAKE OR DOG BITE. Wash the wound with peroxide and bandage tightly above the wound.

DROWNING. Lay the person with his head downward, then work his arms back and forth over his head so as to work the water out of the lungs.

A DECALOG OF GOOD HEALTH

F. M. Gregg.

1. Nutriment.—Thou shalt select thy diet on a basis of six parts of starchy food, one part of fat, and one of albuminous food; avoid thou an excess of purin yielding foods if thou wouldst escape many bodily ills.

2. Feeding.—Thou shalt eat thy two or three sufficient meals under conditions of good cheer and shalt masticate solids till they become as pea soup, that thou mayest not abuse thy food canal nor eat excessively.

3. Exercise and perspiration.—Thou shalt bring into daily activity all thy more important muscles up to the point of vigorous sweating, so that thou mayest introduce into thy blood sufficient fatigue stuff to insure recuperative sleep, and mayest exercise thy heat-regulating mechanism enough to prevent thy taking colds.

4. Respiration.—Thou shalt give thy chest and trunk free breathing play, and shalt provide thyself with an abundance of wholesome air; whatsoever deep breathing thou indulgest in let it be done naturally in connection with thy daily vigorous exercise, and not as an artificial performance apart from thine other forms of exercise.

5. Cleanliness.—Thou shalt avoid all needless contact with pathogenic, and shalt not make thy mouth a "happy hunting ground" for these enemies; that thy presence may not be offensive to thine asso-

ciates, thou shalt take a daily bath, in the early morning only if thou workest amidst clean surroundings, and in the evening only if thou toilest where thou canst not remain immaculate.

6. Relaxation.—Thou shalt give thyself daily opportunity for approximately eight hours of quiet slumber, and if possible a fifteen-minute siesta midway of thy daily tasks, that thou mayest be ever fresh and optimistic in all thy waking hours.

7. Elimination. Thou shalt observe all the conditions that favor a regular and natural discharge of all the waste materials from thy body, lest thou store up poison in thy system that shall do thee harm.

8. Medicine and drugs.—Thou shalt abstain from the unnecessary use of drugs generally, and when thou partakest, thou shalt do so only under the direction of a wise physician. If thou wouldest be sane thou wilt employ water alone as thy satisfying beverage, and if thou wouldest be wholesome, thou wilt refrain from the use of all narcotics.

9. Clothing.—Thou shalt employ as thy clean and sufficient rainment only a good absorber and non-retainer of perspiration next thy body, such as meshwoven cotton, and shalt adapt thine attractive and serviceable outer garments according to thy varying thermal surroundings.

10. Mental Hygiene.—Thou shalt suppress all useless forms of nervous activity; thou shalt practice cheerfulness all thy days and shalt never hate; thou shalt not indulge in self-pity nor dream for a moment that thou art the exclusive "it"; thou shalt regard thyself as counting for something in this world, but shalt consider others that thou mayest do them good, and that thy days may be long and cherished in the land.

So shalt thou be physically efficient, mentally strong, and morally good.

Geography

1. THE EQUATOR is thought of as an imaginary line drawn around the earth halfway between the poles.

2. The CONTINENTS which are crossed by the EQUATOR are South America and Africa.

3. A VOLCANO is an elevated portion of land where steam and white hot melted rock or lava occasionally force their way out through the cracks.

4. A SLOPE is any land that slants.

5. A SOURCE is the beginning of a brook or a river.

6. A GEYSER is a place where hot water spouts out of the ground.

7. A PLAIN is a broad tract of land that is level or nearly level.

8. OCEAN CURRENTS are streams of surface water moving in the sea. They are caused by wind and temperature.

9. THE GULF STREAM is a branch of one of the ocean currents which winds among and around the islands southeast of the United States, and then flows northeast across the Atlantic ocean.

LOCATIONS

1. CAPE HORN is located at the southern extreme of South America.

2. THE STRAIT OF MAGELLAN is located at the southern portion of South America.

3. THE PANAMA CANAL is located between North and South America.

4. THE SAHARA DESERT is located in the northern part of Africa.

5. THE ISTHMUS OF SUEZ is located in the northeastern part of Africa connecting Asia with Africa.

6. THE MEDITERRANEAN SEA is bounded on the south

by Africa, on the north by Europe, on the east by Turkey, and on the west by Europe and the strait of Gibraltar.

7. THE GOLDEN GATE is the name of the entrance to San Francisco harbor or bay.

EGYPT AND THE NILE VALLEY Egypt is located in the north-eastern portion of Africa, through this country flows the Nile river which also flows across the eastern portion of the desert of Sahara. The lower half of the Nile valley is in Egypt. This valley is only a few miles wide, but it is one of the most fertile regions on the earth. The river has built a great delta at its mouth. This delta is very thickly settled. Every summer the Nile overflows its banks. The water comes from the great lakes near the middle of Africa and from rainfall on the mountains of Abyssinia.

THREE IMPORTANT CANALS OF THE WORLD

1. PANAMA CANAL dug through the Isthmus of Panama which connects North and South America.

2. ERIE CANAL which enables great barges to pass between Buffalo and the Hudson river.

3. SUEZ CANAL dug through the Isthmus of Suez which connects Asia and Africa. A great deal of commerce between Europe and Asia passes through this canal.

THE ISLANDS OF THE WEST INDIES are Cuba, Haiti, San Domingo, Jamacia, Porto Rico, and many smaller islands.

THE SECTIONS OF THE UNITED STATES are: Northeastern, Northern, Southern, Plateau and Pacific.

FISHERIES. Oysters are the most valuable food products of our shore waters. About four-fifths of them are taken from Chesapeake Bay. Baltimore has the largest trade in oysters. Salmon fishing in the United States is done mostly near the northwest coast.

ZONES

The Tropics and Polar circle divide the earth's surface into five zones. A Torrid zone, two Frigid zones and two Temperate zones.

THE TORRID ZONE lies between the tropics. It includes all parts of the earth upon which the sun's rays are at any time vertical. It is thus warmer as a whole than the other zones.

THE TWO FRIGID ZONES about either pole are inclosed by the polar circles. These zones include all parts of the earth where,

during the year, continuous daylight or darkness last for 24 hours or more at any time. They are the coldest zones.

THE TEMPERATE ZONES lie between the Torrid zone and each Frigid zone. In the Temperate zone there is a period of darkness and a period of daylight every 24 hours. Warm summers and cold winters generally prevail there.

THE COUNTRIES CROSSED BY THE EQUATOR are: Brazil, Columbia, Ecuador (of South America); Kongo State, French Kongo, and British East Africa (of Africa.)

THE UNITED STATE IS BOUNDED by Canada and the Great Lakes on the north, the Atlantic ocean on the east, the Gulf of Mexico and Mexico on the south, and the Pacific ocean on the west.

SIX COUNTRIES OF EUROPE are: Russia, German Empire, France, Spain, Italy and Austria.

THE WATER ROUTE FROM NEW YORK TO MANILA. Leaving New York one would sail southward on the Atlantic ocean, passing by Cuba and turning southeastward so as to pass through the Panama Canal. Upon leaving the canal one would sail northwestward on the Pacific ocean until arriving at Honolulu and from there continuing nearly straight east on the Pacific until arriving at Manila.

THE WATER ROUTE FROM BUFFALO TO ODESSA—A ship leaving Buffalo would sail northward on Lake Erie, then pass up the St. Lawrence river and into the gulf of St. Lawrence. The ship would then sail southeastward on the Atlantic ocean until arriving at the strait of Gibraltar. Leaving Gibraltar one would sail across the Mediterranean Sea and into the Black Sea sailing northward until arriving at Odessa.

THE BARBARY STATES. The states which are spoken of as the Barbary states are MOROCCA, TRIPOLI, ALGERIA, and TUNIS. They are located in northern Africa.

THREE PLAINS OF SOUTH AMERICA are: PAMPAS, or grassy plains of the plata basin; the LLANOS of the Orinoco basis, and the SELVAS, or wooded plains, which are the lowlands through which the Amazon river flows.

THE SIX NEW ENGLAND STATES are: Maine, New Hampshire, Vermont, Massachusetts, Connecticut and Rhode Island. They are located in northeastern United States. Much manufacturing is carried on there because of the many harbors and good water power.

LEADING STATES IN PRODUCTS

WHEAT	CORN	COTTON	LUMBER
Kansas	Iowa	Texas	Washington
North Dakota	Illinois	Georgia	Louisiana
Minnesota	Nebraska	So. Carolina	Mississippi
Nebraska	Indiana		
COPPER	CATTLE	SHEEP	HOGS
Montana	Texas	Wyoming	Iowa
Oregon	Iowa	New Mexico	Illinois
Utah	Nebraska	Montana	Missouri
TOBACCO	COAL	IRON	PETROLEUM
Kentucky	Pennsylvania	Minnesota	Texas
No. Carolina	West Virginia	Michigan	Pennsylvania
Virginia	Illinois	New York	

GOLD AND SILVER. Colorado and Montana.

THE LEADING SUGAR PRODUCING SECTIONS are: Colorado, Hawaii and Porto Rico.

SOME CITIES ON THE MISSISSIPPI RIVER are: New Orleans. Minneapolis, Memphis, St. Louis and St. Paul.

SOME CITIES ON THE GREAT LAKES are: Buffalo, N. Y., Chicago, Ill., Milwaukee, Wis., Cleveland, Ohio, Detroit, Mich.

THE CONTINENTS NORTH OF THE EQUATOR are: North America, Europe, Asia and part of Africa.

THE CONTINENTS SOUTH OF THE EQUATOR are: South America and Australia

COUNTRIES AND THEIR CAPITALS

Country	Capital
United States -----	Washington, D. C.
Mexico -----	Mexico City.
Canada -----	Ottawa.
Venezuela -----	Caracas.
Brazil -----	Rio de Janeiro
Argentina -----	Buenos Aircs.
Chile -----	Santiago.
France -----	Paris.
Spain -----	Madrid.
Germany -----	Berlin.
Austria -----	Vienna
Russia -----	Petrograd.
Norway -----	Christiania.
England -----	London.

CONTINENT	RIVERS	MOUNTAINS
North America	Mississippi	Rocky
	Rio Grande	Appalachian
	Ohio	Sierra Nevada
South America	Amazon	Andes
	Parana	
	Orinoco.	
Asia	Amur	Himalaya
	Langtze	
Europe	Rhine	Appennines
	Seine	Caucasus
	Rhone	Alps
	Danube	Pyrenees
Africa	Niger	Margaret
	Kongo	Atlas
Australia	Murray	Blue

Place	Location
Lisbon -----	Capital of Portugal
District of Columbia -----	Land around United States Capital.
Philippines -----	Islands near coast of China.
Mexico -----	Country south of United States.
Cuba -----	Island southeast of Florida.
London -----	Capital of England.

Volga	A river in Russia.
Alps	Mountains of Europe.
Arctic	Ocean north of North America.
Egypt	Northeastern Africa.
Nile	River in Northeastern Africa.
Hawaiian Islands	In the Pacific Ocean.
Duluth	City in Minnesota.
Galveston	City in Texas.
Denver	Capital of Colorado.
Wilmington	City in North Carolina.
Apennines	Mountains in Italy.
Abyssinia	Country in Northeast Africa.
Siberia	Eastern part of Russia.
Fujirjama	Volcano in Japanese Islands.
Porto Rico	Island in the Atlantic Ocean.
Rio de Janeiro	Capital of Brazil.
Yellowstone Park	Park in Wyoming.
Fuget Sound	Northern part of Washington.
Gibraltar	Northern coast of Africa.
Vesuvius	Mountain on western coast of Italy
Blue Ridge	Mountains in Virginia.
Havana	City of Cuba.
Algeria	Northern part of Africa.
Tripoli	Northern part of Africa.
Pekin	Capital of China.
Baltimore	City in Maryland.
Java	Island northeast of Australia.
Brussels	Capital of Belgium.
Calcutta	Capital of India.
Ceylon	Island off Coast of India.
Nile	River in Northern Africa.
West Indies	Islands Southeast of Florida.
Appalachian	Mountains in eastern United States
Madrid	Capital of Spain.
Liverpool	In England.
Yukon	A river in Alaska.
Himalaya	Mountains in China and India.
Manila	A city in the Philippines.
Amazon	A river in South America.
Moscow	A city in western Russia.
Chattanooga	A city in Tennessee.
Honolulu	A city in the Hawaiian Islands.

REVOLUTION. The earth revolving around the sun.

ORBIT. The path the earth follows in traveling around the sun.

SEASONS are caused by the earth passing around the sun.

LATITUDE is distance in degrees north or south of the Equator.

LONGITUDE is a distance in degrees east or west^d of certain imaginary lines called meridians.

A PARALLEL is a continuous imaginary line around the globe connecting all points of a given latitude.

A MERIDIAN is a continuous imaginary line around the globe connecting all points of a given longitude.

A PLATEAU is a broad level piece of land.

THE EQUINOX is one of the two times within each year when the sun reaches a position causing the days and nights to be equal.

THE GREAT LAKES are: Superior, Huron, Erie, Michigan and Ontario.

THE DEPENDENCIES OF THE UNITED STATES are: Cuba, Porto Rico, Alaska, Philippines, Hawaiian Islands, Guam, the Panama Canal Zone, and other small possessions.

THE PROVINCES OF CANADA are: Alberta, Ontario, Quebec, British Columbia, Manitoba, Nova Scotia, Prince Edward Island, New Brunswick and Saskatchewan.

THE PANAMA CANAL. This canal is 50 miles long extending northwest and southeast. It is under policing and control of the United States. It cost between \$350,000,000 and \$400,000,000.

A DELTA is the land formed by sediment at the mouth of a river.

The LOESS PLAINS are rich lands.

SEED GERMINATION is the resuming of the growth of the embryo plant within a seed.

A GLACIER is a large body of ice which passes over the land.

An ICEBERG is a large piece of ice floating in the ocean.

A DESERT is a barren tract of land supporting little or no vegetation.

HUMIDITY refers to the amount of water vapor in the air.

EROSION is the wearing away of rocks and soil, especially by the influence of water and wind.

A RIVER SYSTEM is a river and all its tributaries.

A RIVER BASIN is all the land drained by a river and its tributaries.

An ISLAND is a small body of land surrounded by water.

A PENINSULA is a narrow neck of land reaching out into the water.

THE SAND HILLS are found in north central Nebraska.

SOME INJURIOUS BIRDS are: Crows, some hawks, pigeons and English sparrows.

SOME HELPFUL BIRDS: Chick-a-dees, wrens and robins.

A CAPE is a point of land that extends out into the water.

A STRAIT is a narrow neck of water separating two larger bodies of water.

AN ISTHMUS is a neck of land connecting two larger bodies of land.

SOME INDUSTRIES OF THE EASTERN COAST OF THE UNITED STATES are. Dairying, mining, manufacturing, lumbering, and some farming.

SOME INDUSTRIES OF THE WESTERN COAST OF THE UNITED STATES are: Farming, fishing, stock-raising, fruit growing, and some mining.

AREA OF THE CONTINENTS

Continent	Sq. Miles
ASIA -----	17,000,000
AFRICA -----	11,000,000
NORTH AMERICA -----	8,000,000
SOUTH AMERICA -----	7,000,000
EUROPE -----	3,872,000
AUSTRALIA -----	3,300,000

COUNTRY	PEOPLES	CROPS	OCCUPATIONS
France	White	Wheat	Farming
	Yellow	Corn	Mining
	Black	Rye	Manufacturing
Germany	White	Wheat	Farming Manufacturing
		Corn	
		Barley	
		Oats	
Italy	Greeks	Rice	Farming (chief one)
	Italians	Cotton	
	French	Corn	
	Black	Wheat	
United States	White	Wheat	Farming
	Black	Oats	Mining
	Red	Corn	Manufacturing
		Barley	
Australia	White Black	Wheat	Mining
		Sheep	Farming
		Cattle	
England	White	Wheat	Mining
		Corn	Manufacturing
Spain	White	Corn	Farming
		Wheat	Mining
Greece	Jews	Grapes	Farming
	Black	Barley	Herding
	Greeks	Wheat	
Russia	Turks	Wheat	Farming
	Fezcaps	Hemp	
	Americans	Barley	
		Rye	

GOVERNMENTS

Country	Government.
United States -----	Republic.
Germany -----	Republic.
England -----	Limited Monarchy.
Russia -----	No Stable Government.
Mexico -----	Republic.
China -----	Republic.
Belgium -----	Limited Monarchy.
Sweden -----	Limited Monarchy.
Switzerland -----	Republic.
Venezuela -----	Republic.
France -----	Republic.
Japan -----	Limited Monarchy.
Spain -----	Limited Monarchy.

 THE KINDS OF GOVERNMENT—

1. MONARCHY, government by one person (King, Queen, Emperor.)
2. ARISTOCRATIC, government by a few persons.
3. DEMOCRATIC, government by the people.

CONT. or COUNTRY	IMPORTS	EXPORTS
UNITED STATES	China	Wheat
	Tea	Beef
	Coffee	Corn
	Rubber	
SOUTH AMERICA	Flour	Rubber
	Manufactured goods	Hides
		Coffee
		Sugar
EUROPE	Wheat	China
	Corn	Cloth
	Food stuffs	Hardware
JAPAN	Cotton	Tea
	Rice	Silk
	Sugar	
AFRICA	Manufactured goods	Palm oil
		Rubber
		Ivory
		Hides
INDIA	Manufactured goods	Rice
	Hardware	Cotton
		Wheat
AUSTRALIA	Manufactured goods.	Canned beef
	Sugar	Flour
	Tea	Hides
		Wool
CANADA	Manufactured goods	Wheat
	Coffee	Lumber
	Rubber	Cattle

Agriculture

DEFINITIONS

1. SUBSOIL is the bed of material or soil, just beneath the surface soil.

2. HUMUS is a brown or black material formed by the decomposition of vegetable and animal matter.

3. LOAM is a blackish soil often containing some clay and sand.

4. LOESS is a peculiar deposit of loam ranging to sand at one extreme and clay at the other, usually a yellowish brown.

5. A BALANCED RATION is a ration in which the ratio of protein, carbohydrates and fat correspond to the required feeding standard.

6. A ROOT is a portion of a plant bearing neither leaves nor reproductive organs. Its function is absorption, anchorage and storage.

7. GRAFTING is a means of propogating plants by inserting a scion in a branch or stem of another plant.

8. BUDDING is a means of propogating plants by inserting a bud in a branch or stem of another plant.

9. ANNUALS generally reproduce from seeds only, the roots and branches dying at the end of the season. (An annual is a one year plant.)

10. BIENNIALS generally reproduce by seeds, the plant dies down in the winter and comes up in the following spring. (Biennials live for two years.)

11. PERENIALS reproduce by seeds or by seeds and buds. They live more than two years.

12. A RUNNER is a slender prostrate branch which roots at the joints or ends forming new plants; as in strawberries.

13. A FUNGICIDE is a spray such as Bordeaux Mixture, used to prevent fungus parasites.

14. FOUR WAYS OF PROPAGATING PLANTS are: By seeds, grafting, budding, and cuttings.

15. A DUAL PURPOSE COW is one that is a fair milk cow and also a fair beef animal; example, Shorthorn.

16. FOOD IS COMPOSED of fats, carbohydrates, and protein. Protein is the most essential in muscle building.

17. BORDEAUX MIXTURE is a spray used to prevent Fungus diseases. The following is the formula commonly used for making 50 gallons of spray: Dissolve four pounds of stone lime in enough water to keep it boiling ten or twelve minutes. When it ceases boiling add enough water to make 25 gallons of solution. Next place four pounds of copper sulphate in a sack and allow it to touch the water surface of a container which contains 25 gallons of water. When the copper sulphate has all dissolved pour the 25 gallons of this solution and the 25 gallons of lime solution into a 50 gallon container using care to pour both solutions into the container at the same time.

18. ARSENATE OF LEAD in solution with water is a spray used against injurious insects. (Example—potato bugs.) It is prepared by dissolving 2 or 3 pounds of arsenate of lead—paste form—in 50 gallons of water.

19. PARASITES are plants or animals living on some plant or animal as a host; examples are: bacteria and fungi.

20. TWO ELEMENTS plant secure from the air are: Carbon, and oxygen.

21. THREE ELEMENTS plants secure from the soil are: Nitrogen, phosphorus and potash.

22. A WEED is a plant not wanted.

23. FERTILIZER is a material added to the soil to increase its fertility.

24. A FORAGE CROP is any crop the stems or leaves or both of which are used either green or dry for feeding stock. (By Wilson & Warberton.) Example—millet and alfalfa.

25. SOILING A CROP is the feeding of green feed; as, cutting green corn and carrying it to hogs.

METHODS OF ERADICATING INSECTS PESTS

1. Rotation of crops.
2. Breaking up of grass lands.
3. Regulation of cultivation.
4. Adjustment of time of sowing.
5. Burning over of grass lands (used to destroy chinch bugs.)
6. Destroying of wheat stubble (used against Hession fly.)
7. Treatment of seed with paris green and water.
26. Some injurious pests: The cut worm, Hession fly, chinch bug and army worms.
27. A knowledge of botany is essential in Agriculture because it is a study of how plants live and grow.

ANIMAL BREEDS

1. FOUR BREEDS OF BEEF CATTLE are: Hereford, Short-horn, Aberdeen-Angus and Galloway.
2. FOUR BREEDS OF HORSES are: Percheron, Clydesdale, Belgian and Shire.
3. FOUR BREEDS OF HOGS are: Duroc Jerseys, Poland Chinas, Hampshires and the Chester Whites.
4. FOUR BREEDS OF SHEEP are: Shropshire, Hampshire, Southdown and Cotswold.
5. FOUR DAIRY BREEDS OF CATTLE are: Jersey, Holstein, Guernsey, and Ayrshires.

Other Important Things Every Pupil Should Know

1. How to bound his state by states and by longitude and latitude.
2. The county officers of his county.
3. How to bound his county.
4. How to place the towns in his county.
5. He should know two or three leading railroads of his state.
6. He should know the names of some of the congressmen and the name of the governor of his state.
7. How to prepare a good seed bed.
8. He should know the names of some American and British authors and some of their works.
9. He should know all essential rules of spelling.
10. He should know the rules for punctuation.
11. He should understand parsing and diagraming.
12. He should know of several rivers in his state and be able to trace their course.
13. He should know the names of several institutions in his state and where they are located.



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